

AIB 7 5/14  
9 January 1952

SUBJECT: Second Report on Item "Plastic"

1. On 26 September 1951 a preliminary report on an object, which has come to be known as Item "Plastic", was circulated to CIA and personnel concerned with Project Artichoke. (Copy attached) H-B3

2. The preliminary report gave a brief description of the item and the manner in which it was obtained. A picture of the components was included and it was indicated that analysis of the contents of the tube both in the field and in the United States failed to identify the material.

3. The individuals from whom the item was obtained claimed that the tube contained a material which when injected in a victim, would make him amenable to the will of his captor. Therefore evaluation efforts have been made through chemical analysis of the item to determine the true nature and purpose of the material it contained. To date these efforts have been unsuccessful. However, information obtained since the original report is summarized herein for record purposes:

a. One of the containers was retained in the field and tested for barbituates with negative results. No information on the extent of testing and the disposition of the material has been obtained. Further inquiry has been made and a highly competent scientific consultant is available to follow up on any leads should they develop.

b. Information has been obtained indicating that originally the tube was full of a jelly-like substance. On delivery for chemical testing, however, the tube was practically empty and complete analysis of the contents was therefore impossible.

c. Despite this factor two drops of the material were obtained from the tube and subjected to spectrophotometric analysis. The resultant curve had a peak shoulder at 290 milli-microns which is not similar to that exhibited by any substance or compound known to the investigator. Efforts to synthesize a compound with similar characteristics have been unsuccessful to date. Scrapings of the inside of the container have been subjected to exhaustive analysis with no positive results to date.

d. Scrapings of rust and decomposed matter in the order of 10 to 25 milligrams from the outside surface of the needle gave a positive test for blood with the Benzidine test. This is not conclusive evidence that there was blood on the needle and further information on the manner in which the test was performed has been requested. If this fact is established it is significant because of the agent's statement that the item had not been used.

e. Analysis of the needle:

(1) It is similar to a standard U. S. 19 gage hypodermic needle, ordinarily used for venipuncture. Dimensions are:

Outside diameter - .010 inches\*

Inside diameter - .027 inches

Length - .792 inches

\*The outside diameter is significantly smaller than the U.S. surgical needle of the same type which has a diameter of .042 inches. This may assist in determining the place of manufacture. Conversations are being arranged with the principle U.S. manufacturer of surgical needles to explore this possibility.

(2) The needle, which apparently had been broken from its brass hub in shipment, was positively identified by spectrographic analysis as having been attached to the hub. Further spectrographic analysis revealed that the needle is made of high carbon tool steel such as is usually used for hypodermic needles. The needle is composed of scattered spheroids of cementite in a matrix of tempered martensite with traces of impurities of Ni, Al, Mo, Sm, Cu, Ca, Cr, Si, Mg, Mn. It may be possible to locate the place of manufacture of the needle from this information.

f. Analysis of the tube:

(1) This is a well constructed collapsible aluminum tube, lacquered on the inside and with an outside coating of dull white paint. There are no identifying markings of any kind on the outside and ultra-violet examination revealed no evidence of invisible markings or labelling.

(2) The top of the tube consisted of a brass neck, machine threaded to receive the brass hub holding the needle.

(3) Significant differences in the tube, as compared to similar U.S. manufactured items were noted. Most U.S. tubes are made of tin with no inside or outside coating. Needles are usually fastened to the tube by ground glass or plastic joints. The brass cap and machine-thread technique is an expensive and non-standard method which could not be explained by any of the prominent medical and pharmaceutical experts consulted.

g. Analysis of the Plastic container:

(1) The container is made of Polymethyl Methacrylate (trade name "Plexiglass" or "Lucite"), which is manufactured in large quantities in the [redacted] as "lucite") and [redacted] as "plexiglass"). To our knowledge [redacted] is the only manufacturer of this material

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in either [REDACTED] although it is known to be produced in the [REDACTED]

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Actually this information is not too significant since any small manufacturer could have machined out a container of this type from a cylindrical bar of plastic manufactured by any of the companies in the U.S. [REDACTED] or the [REDACTED]. Certain features of the casting, its composition and appearance, tend to indicate that it is of [REDACTED] origin but this is not conclusive. Further progress in tracking down the origin of the container from the information noted herein is not expected.

4. General observations:

a. Analysis of the information and material available in the U.S. has reached the point of diminishing returns. With the receipt of a final report on the scrapings from the tube; the benzidine test for blood, and whatever information can be obtained on the source of manufacture of the needle, the case will have to be closed with a question mark unless further information can be developed in the field. Assumptions which may be drawn from the sketchy information available are:

(1) Since the plastic container is not designed either for most efficient protection of the tube and needle nor for concealment of the item, it was probably made out of available materials as the best container that could be obtained under the circumstances. However, the possibility that the container was deliberately manufactured in this form and shape to permit concealment with ordinary items should not be overlooked. Otherwise, given facilities and time, a simple syringe with ground glass or plastic connector and with a plastic cap to protect the needle would have served the purpose and would be much easier to conceal.

(2) The tube and brass hub with needle attached are subject to the same speculation as above.

(3) The contents of the tube are unidentifiable and could range anywhere from a substance for use in rendering a person unconscious to a new compound with narco-hypnotic properties. The circumstances favor the former possibility and suggest an aid to kidnapping rather than more esoteric purposes.